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SOVIET SCIENTIFIC AND TECHNICAL ARTICLES, JUNE 1952

The listing below was taken from a bibliography prepared by the Science Library, Physicotechnical Institute, Academy of Sciences USSR, which included articles from 34 journals, four Soviet and 30 non-Soviet. The following presents only a list of the articles from the Soviet journals, Doklady Akademii Nauk SSSR (DAN), Zhurnal Tekhnicheskoy Fiziki (ZhTF), Uspekhi Fizicheskikh Nauk (UFN), and Uspekhi Khimii (UKh). Also included is a list of the non-Soviet journals from which there were articles in the original bibliography.

1. Acoustics

B. D. Tartakovskiy and M. M. Ekruss, "Measuring of Sound-Absorbing Materials in a Reverberatory Chamber," DAN, 82 (1952), No 3, pp 373-6.

The remaining 29 articles under this heading in the original included 21 American articles; the rest were French, German, and Indian.

2. Mechanical Properties of Metals

T. A. Amfiteatrova and B. Ya. Yampol'skiy, "Influence of Dispersion (Micro-structure) of a Metal on Its Plastic Flow in Active Media," DAN, 82 (1952), No 5, pp 735-738.

F. S. Belenov, "Kinetics of Tempering and the Determination of Time Tempering Stresses," ZhTF, 22 (1952), No 1, pp 111-120.

N. N. Davidenkov and S. Ye. Belyayev, "Tempering of Steel During the Precipitation of Carbides," ZhTF, 22 (1952), No 1, pp 40-43.

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B. M. Rovinskiy "Theory of Toughening of Metals. I. Electron Density and Mechanical Defects in the Lattice of Plastically Deformed (Strained) Copper," ZhTF, 22 (1952), No 1, pp 55-62.

B. M. Rovinskiy, "Theory of Toughening of Metals. II. Electron Density and Chemical Defects in the Lattice of a Solid Solution of Aluminum and Copper," ZhTF, 22 (1952), No 1, pp 63-66.

[The remaining article was Japanese.]

3. Structure of Metals and Alloys, Etc.

K. P. Lunin and N. M. Danil'chenko, "Mechanism Governing the Influence of Preliminary Tempering on the Speed of Graphitization of Pig Iron," DAN, 82 (1952), No 3, pp 381-384.

A. S. Zav'yalov, "Mechanism and Kinetics of the Conversion of Austenite Into Iron-Carbide Alloys," ZhTF, 22 (1952), No 1, pp 148-168.

A. S. Zav'yalov, "Discussion: Answer to G. V. Kurdyumov," ZhTF, 22 (1952), No 1, pp 172-174.

[Seven non-Soviet articles are also listed.]

4. High-Polymer Compounds

L. I. Vidro and B. I. Stepanov, "Distribution of Intensity in the Oscillatory Spectra of Linear Chains," DAN, 82 (1952), No 4, pp 557-560.

S. S. Voyutskiy and S. I. Rubina, "Modern Representations Concerning the Dimensions, Form, and Structure of Soot Particles," UKh, 21 (1952), No 1, pp 84-104.

V. V. Korshak and T. A. Gr'bova, "Certain Laws Governing the Reactions of Mutual Polymerization of Diisocyanates With Glycols," DAN, 82 (1952), No 3, pp 397-400.

V. V. Korshak, G. N. Chelnokova, and G. I. Distler, "Value of Exchange Reactions in the Polycondensation Process," DAN, 82 (1952), No 4, pp 579-592.

R. E. Neyman, "Peculiarity of Thermal Expansion of Jellies and Gelatin Solutions," DAN, 82 (1952), No 3, pp 419-422.

N. D. Sokolov, "Quantum Theory of the Spectroscopic Manifestations of the Hydrogen Bond," DAN, 82 (1952), No 3, pp 369-372.

[Twelve non-Soviet articles, mostly American, are also listed.]

5. Dielectrics

N. M. Verebeychik, A. E. Kamenchik, and V. I. Odelevskiy, "Dielectric Losses in Alkali Aluminosilicate Glasses," ZhTF, 22 (1952), No 1, pp 12-15.

Ye. K. Zavadovskaya, "Relation Between Rupture Strength and Mobility of Charges in a Dielectric," DAN, 82 (1952), No 4, pp 565, 566.

Ye. K. Zavadovskiy, "Dielectrics of High Electric Strength," DAN, 82 (1952), No 5, pp 709-712.

V. T. Reniye, N. M. Reynov, and M. M. Yudashkina, "Electric Strength of Condenser Paper in a Compressible Gas Medium," ZhTF, 22 (1952), No 1, pp 16-20.

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P. I. Sarzhevskiy, "Dependence of Electrical Conductivity of Quartz on Electrical Field, Temperature, and Magnetic Field," DAN, 82 (1952), No 4, pp 571-574.

G. A. Smolenskiy, "Polarization and Dielectric Losses of Zirconates, Stannates, and Certain Titanates of Bivalent Metals," ZhTF, 22 (1952), No 1, pp 3-11.

[Eleven non-Soviet articles are also listed.]

6. Electrical and Magnetic Properties of Metals

R. G. Annayev, V. G. Dubrovskiy, and Ye. K. Kapustyan, "Measuring the Electrical Resistance of the Alloy Fe₃Pt in a Longitudinal Magnetic Field," DAN, 82 (1952), No 4, pp 549-552.

R. G. Annayev and M. V. Kolodin, "Thermomagnetic Effect of the Alloy Fe₃Pt," DAN, 82 (1952), No 5, pp 697-700.

Ya. M. Dovgalevskiy, "Conversions During Thermomagnetic Treatment of High-Coercion Alloys," ZhTF, 22 (1952), No 1, pp 121-128.

G. P. D'yakov, "Generalizing the Law of Approximation of Even Effects," DAN, 82 (1952), No 6, pp 867-868.

Ye. Kondorskiy, "Theory of Single-Domain Particles," DAN, 82 (1952), No 3, pp 365-368.

V. V. Parfenov and V. R. Abel's, "Investigating the Temperature Dependence of the Hall Effect in Electrolytic Iron," DAN, 82 (1952), No 6, pp 877-880.

A. I. Rezanov, "Thermal and Thermoelectric Properties of Ferromagnetic Metals," DAN, 82 (1952), No 6, pp 885-888.

[Twelve non-Soviet articles are also listed.]

7. Semiconductors

Ye. D. Devyatkov, Yu. P. Maslakovets, and L. S. Stil'bans, "Thermal Conductivity, Electrical Conductivity, and Thermoelectromotive Force of the System Sb-Zn, and also the Influence on Them of Insignificant Admixtures of Other Metals," ZhTF, 22 (1952), No 1, pp 129-142.

B. I. Dyatlovitskaya, "Optical Factors and Effective Depth in the Photoeffect of Antimony-Cesium Cathodes," ZhTF, 22 (1952), No 1, pp 84-100.

G. I. Rekalova, "Certain Optical and Photoelectrical Properties of Auro-pigment (As₂S₃)," ZhTF, 22 (1952), No 1, pp 143-174.

L. S. Stil'bans, "Adiabatic and Isothermal Hall Effects in Semiconductors," ZhTF, 22 (1952), No 1, pp 77-79.

[Sixteen non-Soviet articles are also listed.]

8. Gaseous Discharge

[No Soviet articles are listed in the original report; 31 non-Soviet articles are listed.]

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9. Electronics

M. M. Vudynskiy, "Depth of Emission of Secondary Electrons," DAN, 82 (1952), No 5, pp 705-708.

I. Dykman, "Conference on Cathode Electronics," ZhTF, 22 (1952), No 1, pp 175-182.

[Nine non-Soviet articles are listed.]

10. Radiophysics and Radiotechnics

B. N. Gershan, "Spreading of Electromagnetic Impulses Propagated in the Ionosphere," ZhTF, 22 (1952), No 1, pp 101-104.

[Forty-nine non-Soviet articles are listed.]

11. X-Rays, Electronography

R. L. Barinskiy, E. Ye. Vaynshteyn, and K. I. Narbutt, "Using the Magnitude of Jump in the Coefficient of X-Ray Absorption for Calculating the Fine Structure of the Main Border," DAN, 82 (1952), No 3, pp 355-358.

E. Ye. Vaynshteyn, K. I. Narbutt, and R. L. Barinskiy, "Structure of Main X-Ray Border of Absorption in the Case of Atoms in Polar Crystals and Its Connection With Ultraviolet Absorption," DAN, 82 (1952), No 5, pp 701-704.

K. I. Narbutt, R. L. Barinskiy, and E. Ye. Vaynshteyn, "Structure of Main X-Ray Border of Absorption in the Case of Ions in a Solution," DAN, 82 (1952), No 4, pp 567-570.

A. I. Danilova, V. I. Danilov, and Ye. Z. Spektor, "Structure of Fluid Tin, Bismuth, and Lead," DAN, 82 (1952), No 4, pp 561-564.

[Nineteen non-Soviet articles are listed.]

12. Optics

I. I. Breydo and P. Kh. Pruss, "Dependences of the Resolving Capacity of Photographic Material on the Wave Length of Activating Light," DAN, 82 (1952), No 6, pp 893-896.

G. A. Istomin, "Reproduction of Micro and Macro Details by Photographic Layers," DAN, 82 (1952), No 6, pp 897-900.

B. M. Levin, "New Mirror Multiplier," ZhTF, 22 (1952), No 1, pp 105-110.

N. D. Sokolov, "Quantum Theory of the Spectroscopic Manifestations of the Hydrogen Bond," DAN, 82 (1952), No 3, pp 369-372.

K. V. Shalimova and T. P. Belikova, "Duration of the Excited State of Certain Phosphors," DAN, 82 (1952), No 5, pp 713-716.

K. V. Shalimova and N. S. Mendakov, "Photoluminescence of AgI Sublimate Phosphor," DAN, 82 (1952), No 4, pp 575-588.

[Forty non-Soviet articles are listed.]

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13. Electron Optics

P. P. Kas'yankov, "Problem Concerning the Calculation of a Lens in Accordance With a Given Condition Imposed on the Aberration of Third Order," ZhTF, 22 (1952), No 1, pp 80-83.

[Thirteen non-Soviet articles are listed.]

14. Physical Aerohydrodynamics

[Only 4 non-Soviet articles are listed.]

15. Thermophysics

A. B. Datsev, "Thermal Conductivity of Inhomogeneous Glass," DAN, 82 (1952), No 6, pp 861-864.

M. I. Kozak, "Thermal Conductivity of Certain Powders at High Temperatures," ZhTF, 22 (1952), No 1, pp 73-76.

P. N. Kubanskiy, "The Flow Near a Heated Solid in a Standing Acoustic Wave," DAN, 82 (1952), No 4, pp 578-585.

M. V. Kulakov, "Determining the Thermal Coefficients of Solid Heat Insulators," ZhTF, 22 (1952), No 1, pp 67-72.

A. I. Rezanov, "Thermal and Thermoelectric Properties of Ferromagnetic Metals," DAN, 82 (1952), No 6, pp 885-888.

[Seventeen non-Soviet articles are listed.]

16. General Laboratory Technology

S. G. Grenishin, "Action of Electrons on Photographic Layer," ZhTF, 22 (1952), No 1, pp 33-39.

[Nineteen non-Soviet articles are listed.]

17. Vacuum Technology

[Only three non-Soviet articles are listed.]

18. Technology of Nuclear Physics

R. P. Ozerov, "Structural Neutronography," UFN, 45 (1951), No 4, pp 481-552.

M. I. Podgoretskiy, "Number of False Impulse," DAN, 82 (1952), No 6, pp 881-884.

[Fourteen non-Soviet articles are listed.]

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LIST OF NON-SOVIET JOURNALS

Acta Physica Austriaca
Annalen der Physik
Annales de Physique
Applied Scientific Research
Australian Journal of Scientific Research, Series A
British Journal of Applied Physics
Comptes Rendus, Paris
Electronic Engineering
Electronics
Helvetica Physice Acta
Indian Journal of Physics
Journal de Physique et le Radium
Journal of the Electrochemical Society
Journal of the Acoustical Society of America
Journal of the Chemical Society, London
Journal of the Franklin Institute
Journal of the Physical Society of Japan
Journal of Scientific Instruments
Mature
Naturwissenschaften
Physics
Physical Review
Proceedings of the I.R.E.
Proceedings of the National Academy of Sciences, USA
Proceedings of the Physical Society, Sections A, B
Proceedings of the Royal Society, A, London
Zeitschrift fur angewandte Physik
Zeitschrift fur Elektrochemie
Zeitschrift fur Naturforschung
Zeitschrift fur Physik

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